



United States Environmental Protection Agency
Region I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

CERTIFIED MAIL: RETURN RECEIPT REQUESTED

FEB 16 2016

Mr. Jeffrey D. Mathis, P.E.,
SHE Operations Manager
BAE Systems-Electronic Systems
130 Daniel Webster Highway
Merrimack, NH 03054

Re: NOTICE OF VIOLATION of the Resource Conservation and Recovery Act ("RCRA"), the Hazardous and Solid Waste Amendments ("HSWA") of 1984, and the State of New Hampshire Department of Environmental Services, New Hampshire Code of Administrative Rules (Chapter Env-Hw 100 through 1114.04)

Dear Mr. Mathis:

On July 21-22, 2014, the United States Environmental Protection Agency (EPA) conducted a Compliance Evaluation Inspection at BAE Systems-Electronic Systems ("BAE" or the "Facility") in Merrimack, New Hampshire. The purpose of this inspection was to determine the compliance of BAE (EPA ID No. NHD000791616) with the State of New Hampshire Department of Environmental Services (NHDES), New Hampshire Code of Administrative Rules (Chapter Env-Hw 100 through 1114.04), and Federal Hazardous Waste Management Regulations found at 40 CFR Part 260-272. The State of New Hampshire has been granted final authorization by EPA to administer certain portions of RCRA.

As a result of the inspection, EPA has determined that your facility violated certain provisions of the NHDES Rules and the RCRA regulations, promulgated at 40 CFR Part 260 through Part 272. The specific violations are set forth below:

- 1. Failure of a generator of waste to determine if that waste is a hazardous waste, as set forth in Env-Hw 401.01, as required by Env-Hw 502.01.**

Specifically, at the time of the inspection, BAE had not conducted a hazardous waste determination on the following waste streams:

a. Right side of HWSA Bay:

One gray bin containing a 4-ounce bottle. The bin was labeled with a red tag that indicated "Statement of hazard 7-16-14 TBD [to be determined]." Additionally, a sign was posted on the wall above the bin stating "Warning, hazardous material pending evaluation,"

b. Satellite Accumulation Container, Building MER-12, Room MER 12-1450 (Crystal Lab 1):

EPA observed a cutting and grinding station with an in-line coolant container consisting of a closed, white, 5-gallon plastic bucket that had two tubes feeding into and out of the bucket via a hole cut into the lid. Mr. Mathis indicated that when this coolant goes off-specification, it is transferred into one of three 5-gallon SAA containers situated near the grinding station. The SAA container that receives the off-specification coolant is labeled "hazardous waste, tellurium, cobalt, indium spheres, silicon lump, zinc, arsenic/cadmium, germanium, Therm-attach T404 and T405™, grindings/fines and water." According to Mr. Mathis, the waste coolant contains water and a cutting coolant known as "Rustlick™." Mr. Mathis indicated to the inspection team that this off-specification coolant waste may actually not be hazardous and that he would conduct a hazardous waste determination as soon as possible.

[Note: On August 12, 2014, EPA received correspondence from Mr. Mathis indicating that BAE had, on July 23, 2014, conducted a hazardous waste determination on the spent water and Rustlick™ coolant waste. Analytical results indicate that this waste is a toxic hazardous waste due to the presence of cadmium, arsenic and selenium.]

2. Failure of the owner or operator to maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, as required by Env-Hw 509.01(c), which references Env-Hw 509.02(a)(4), which incorporates by reference 40 CFR 265.35; and failure to ensure that hazardous waste labels shall not be hidden by walls or other containers, as required by Env-Hw 507.03(a)(2).

Left Side of HWSA Bay: EPA observed a single undated 55-gallon drum labeled "hazardous waste, waste solids containing flammable liquids, acetone, isopropyl alcohol (waste wipes and rags), D001, D007, D035, F003, F005, toxic, ignitable." However, the label on this drum was partially inaccessible since the drum was placed close to the wall and was located behind a row of other drums. Inspectors focused a camera in the narrow space between the wall and the drum in order to take a picture of the full label. The resultant photograph revealed the labeling described above.

[Note: Facility personnel addressed the aisle space issue by rearranging the containers before the end of the inspection.]

3. Failure of the generator accumulating hazardous waste to use storage practices that do not pose a hazard to human health or the environment, as required by Env-Hw 506.01(a).

Left Side of the HWSA: EPA observed a drum compactor with an open 55-gallon drum of hazardous waste. The compactor piston and plate was pressed down into an 55-gallon black metal drum that was approximately two thirds full of compressed flammable solids consisting of (per observed labeling and Mr. Mathis) rags and wipes. The drum was also situated in a

gray metal cabinet. The door of the cabinet had a "flammable solid" label, a "danger, no smoking, no open flames, no sparks" label, and a USDOT hazardous waste label that indicated "hazardous waste, waste wipes and rags, NH01, D001, D007, D035, F003 and F005." The inside of the cabinet door was also labeled "flammable solids." The cabinet door did not have a seal (such as a chemical resistant gasket) that could prevent the escape of volatilized ignitable hazardous constituents from the open drum. Furthermore, when closed, the cabinet door created a metal-to-metal contact between the entire perimeter of the door and the cabinet frame, increasing the potential for creating sparks. There were provisions for grounding and bonding in the HWSA, but inspectors were unable to see behind the cabinet to determine if it was grounded. The power connection of the compactor did provide electrical grounding, however, it was unclear if this grounding extended to the open 55-gallon drum since contact between the compactor piston and plate with the inside of the metal drum was broken by a protruding blue plastic drum liner. The drum had the same US DOT label as found on the outer surface of the cabinet door and was dated "7/17/2014."

[Note: On August 12, 2014, EPA inspectors received correspondence from Mr. Mathis indicating that storage practices regarding the container/cabinet/compactor configuration, described above, was modified on July 21, 2014 to reduce potential hazards.]

4. **Failure to ensure that a container holding hazardous waste is always closed during storage, except when it is necessary to add or remove waste, as required by Env-Hw 509.01(c), which references Env-Hw 509.02(a)(6), which incorporates by reference 40 CFR 265.173(a).**

Left Side of the HWSA: As described in violation 3, above, both the 55-gallon metal drum of compacted "hazardous waste, waste wipes and rags, NH01, D001, D007, D035, F003 and F005," and the unsealed door of the cabinet housing the 55-gallon drum were effectively open.

[Note: On August 12, 2014, EPA inspectors received correspondence from Mr. Mathis indicating that, as of July 21, 2014, the drum within the cabinet will remain closed at all times except during the addition and compression of the waste rags and wipes.]

Regarding less-than 90-day hazardous waste storage area (HWSA) containers:

5. **Failure to clearly label or mark containers and tanks used for the storage of hazardous waste with words that identify the contents at the time they are first used to store wastes, as required by Env-Hw 507.03(a)(1)(c).**

Right Side of HWSA Bay:

- a. One 5-gallon container labeled "hazardous waste, ignitable, corrosive, D001, D002, 7/1/14." This container was not labeled with words that described the contents;
- b. One 1-gallon container labeled "hazardous waste, reactive (water), D003, 7/3/14." This container was not labeled with the words that described the contents; and
- c. One 1-gallon white container labeled "hazardous waste, toxic, D007, 7/3/14." This container was not labeled with words that described the contents;

6. Failure to clearly label or mark containers and tanks used for the storage of hazardous waste with the beginning accumulation dated at the time they are first used to store wastes, as required by Env-Hw 507.03(a)(1)(a).

- a. Left Side of HWSA Bay: EPA observed a partially inaccessible, undated 55-gallon drum labeled "hazardous waste, waste solids containing flammable liquids, acetone, isopropyl alcohol (waste wipes and rags), D001, D007, D035, F003, F005, toxic, ignitable."
- b. Right Side of HWSA Bay:
EPA observed one 30-gallon yellow polyurethane container labeled "hazardous waste aerosol, D001, D003, D005, D008, D035, D039, F002, F003, F005, flammable gas" which was not marked with the start accumulation date. [Note: The date of "1/18/14" was on the label but had been crossed out.]

7. Failure of a generator, accumulating as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste, to ensure that, at the time the container(s) are first used to store wastes, the hazardous waste container(s) are clearly labeled or marked with the words "hazardous waste," and with words that identify the contents of the container(s), as required by Env-Hw 509.03(g).

- a. Satellite Container in Building MER1-15, SAA in Room 1820 (Circuit Board Assembly Room): EPA observed six small containers (1- to 4-gallon sizes) that contained various waste streams such as gold for recovery/reclamation; lead and cadmium for recovery/reclamation; lead and tin for recovery/reclamation; sharps with flammable solvents; and universal waste batteries. One of the containers labeled "lead for recovery, Cd, Pb" was missing the words "hazardous waste." Mr. Southmayd added the words "hazardous waste" to the label at the time of the inspection.
- b. Satellite Container in Building MER-12, SAA in Room 1038 (EO IR Lab/ Electro-optical Development and Testing Laboratory): EPA observed one 1-gallon container labeled "sharps with flammable solvents, D001, D007, D035, F003, F005." The words "hazardous waste" were missing from the label. Mr. Mathis added the words "hazardous waste" to the label at the time of the inspection.
- c. Satellite Container in Building MER-12, SAA in Room 1450 (Crystal Lab Stock Room): EPA observed one 1-gallon container labeled "lead D008 for reclamation." The words "hazardous waste" were missing from the label. Mr. Southmayd added the words "hazardous waste" to the label at the time of the inspection.

[Note: At the time of the inspection, BAE representatives added the words "hazardous waste" to all the drums cited above.]

BAE is hereby required to:

Immediately upon receipt of this NOTICE:

1. Conduct hazardous waste determinations, as set forth in Env-Hw 401.01, as required by Env-Hw 502.01.
2. Maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, as required by Env-Hw 509.01(c), which references Env-Hw 509.02(a)(4), which incorporates by reference 40 CFR 265.35. Ensure that hazardous waste labels shall not be hidden by walls or other containers, as required by Env-Hw 507.03(a)(2).
3. Implement to use of storage practices that do not pose a hazard to human health or the environment, as required by Env-Hw 506.01(a).
4. Ensure that a container holding hazardous waste is always closed during storage, except when it is necessary to add or remove waste, as required by Env-Hw 509.01(c), which references Env-Hw 509.02(a)(6), which incorporates by reference 40 CFR 265.173(a).
5. Clearly label or mark containers and tanks used for the storage of hazardous waste with words that identify the contents at the time they are first used to store wastes, as required by Env-Hw 507.03(a)(1)(c).
6. Clearly label or mark containers and tanks used for the storage of hazardous waste with the beginning accumulation dated at the time they are first used to store wastes, as required by Env-Hw 507.03(a)(1)(a).
7. Ensure that satellite accumulation area containers are clearly labeled or marked with the words "hazardous waste," and with words that identify the contents of the container(s), at the time the container(s) are first used to store wastes, as required by Env-Hw 509.03(g).

Within 30 days of receipt of this NOTICE:

BAE is required to submit a written description, with supporting documentation, of the actions taken to correct violations 1(a), 5 and 6, above.

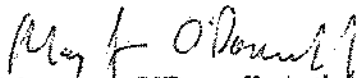
Your response to this NOTICE should specifically describe corrective actions undertaken to address each violation, and may include any supporting documentation to substantiate the actions taken to correct the aforementioned violations.

Information submitted in accordance with this NOTICE should be sent to the following address:

Ms. Susann D. Nachmann, Environmental Engineer
US EPA Region 1 Office of Environmental Stewardship
RCRA, EPCRA and Federal Programs Unit (OES05-1)
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Failure to correct the violations, as required by this NOTICE may subject BAE to further Federal enforcement action, including an assessment of penalties, pursuant to Section 3008 of RCRA, 42 U.S.C. § 692. If you have any questions regarding this NOTICE, please contact Susann D. Nachmann of my staff at (617) 918-1871.

Sincerely,


Mary Jane O'Donnell, Acting Manager
RCRA, EPCRA and Federal Programs Unit

cc: John Duclos, NHDES
Susann D. Nachmann, EPA
RCRA file